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The assembly of a plant network in alpine vegetation

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Appendix S2 Summary results of statistical analyses.

Table S1 Best null models of species independence.

Table S2 Species list with number of individuals and cover.

Table S3 Summary results of Principal Component Analysis.

Table S1 Selection of the best null model among inhomogeneous point process model (IPP), inhomogeneous Poisson process model (PC) and inhomogeneous Poisson cluster process model (IPC). Differences between theoretical and estimated *K* functions (υ) and their p-values (*p*) are shown. The smaller the differences, the higher the p-value, the better the pattern estimated from the observed data could be explained by a theoretical function.

Species	**IPP υ**	**IPP *p***	**PC υ**	**PC *p***	**IPC υ**	**IPC *p***	**best**
antvul	$1.7x10^{10}$	0.21	$5.4\ x10^{9}$	0.915	$3.1x10^{10}$	0.275	PC
arabel	$1.1x10^{10}$	0.23	$4.9x10^{11}$	0.31	$2.2x10^{10}$	0.19	PC
astalp	$1.8x10^{9}$	0.315	$1.8x10^{11}$	0.52	$2.7x10^{10}$	0.63	IPC
creter	$1.2x10^{10}$	0.415	$4.1x10^{10}$	0.57	$1.2x10^{10}$	0.715	IPP
draaiz	$2.4x10^{10}$	0.015	$6.3x10^{7}$	0.925	$1.7x10^{7}$	1	IPC
dryoct	$2.5x10^{10}$	0.795	$2.4x10^{8}$	0.995	$1.2x10^{9}$	0.72	PC
eriuni	$1.8x10^{11}$	0.06	$1.0x10^{10}$	0.88	$7.6x10^{10}$	0.77	PC
eupmin	$2.5x10^{10}$	0.055	$3.9x10^{9}$	0.735	$1.8x10^{10}$	0.07	PC
galani	$3.3x10^{11}$	0.015	$1.2x10^{10}$	0.995	$7.9x10^{9}$	0.665	IPC
leomon	$7.0x10^{8}$	0.01	$1.6x10^{6}$	0.425	2.1x16	0.425	PC
linalp	$3.8x10^{8}$	0.005	$2.5x10^{7}$	0.685	$3.4x10^{7}$	0.74	PC
minver	$4.9x10^{12}$	0.005	$3.7x10^{10}$	0.895	$5.5x10^{11}$	0.02	PC
mosssp	$2.8x10^{8}$	0.995	$1.1x10^{9}$	0.985	$1.9x10^{10}$	0.125	IPP
oxyjac	$4.0x10^{8}$	0.765	$3.6x10^{8}$	0.735	$9.0x10^{8}$	0.575	PC
poaalp	$1.1x10^{10}$	0.015	$2.6x10^{8}$	0.77	$4.2x10^{9}$	0.65	PC
polviv	$8.1x10^{10}$	0.06	$4.6x10^{10}$	0.79	$5.1x10^{9}$	0.805	IPC
saxaiz	$2.8x10^{10}$	0.405	$9.1x10^{10}$	0.04	$8.3x10^{9}$	0.715	IPC
sedatr	$1.0x10^{10}$	0.005	$3.8x10^{7}$	0.915	$1.8x10^{8}$	0.81	PC
thypra	$4.6x10^{9}$	0.32	$1.9x10^{11}$	0.21	$1.3x10^{10}$	0.13	IPP

Table S2 Species list with abbreviation and summary data of abundance (ab), relative cover, diameter, height, leaf mass per area (LMA), number of leaves, standardized connections (*z*-*k*), *P*-value range. Only species with more than 10 individuals were considered for the analyses, for a total of 19 species. Taxonomy according to Lauber & Wagner (1996).

Species	**code**	**ab**	**cover**	**diam**	**h**	**LMA**	**leaves**	**z-k**	***P***	
Leontodon montanus	leomon	392	2.62	4.4	2.1	5.3	89.5	1.88	0.06	0.975
Poa alpina	poalp	364	2.02	4.3	2.8	12.2	130.8	0.11	0.562	0.672
Linaria alpina	linalp	355	1.57	3.1	1.8	82.7	71.5	3.63	0.003	1
Sedum atratum	sedatr	215	0.13	1.3	1.3	32.6	92.1	0.68	0.332	0.84
Draba aizoides	draaiz	171	0.35	2.1	1.3	75.5	91.3	0.64	0.344	0.821
Oxytropis jacquinii	oxyjac	103	2.41	7.3	2.2	14.8	82.0	-0.44	0.752	0.464
Polygonum viviparum	polviv	98	2.54	5.4	2.5	2.8	80.2	-1.09	0.919	0.227
Euphrasia minima	eupmin	77	0.04	1.3	3.5	11.6	63.5	0.75	0.312	0.86
Anthyllis vulneraria	antvul	54	0.51	5.0	3.0	9.1	89.7	0.16	0.521	0.694
Galium anisophyllon	galani	51	0.17	3.1	3.7	48.7	76.9	-2.25	1	0.011
Moss	mossp	51	2.41	10.5	NA	NA	NA	0.13	0.54	0.678
Dryas octopetala	dryoct	44	10.04	19.7	3.5	368.5	132.5	3.79	0.003	1
Erigeron uniflorus	eriuni	39	0.08	2.4	1.6	3.7	90.2	-1.00	0.92	0.254
Minuartia verna	minver	27	0.07	2.8	1.7	99.0	81.6	-1.02	0.914	0.235
Crepis terglouensis	creter	20	0.42	8.2	2.1	9.7	95.6	-1.00	0.916	0.241
Aster alpinus	astalp	17	0.13	5.1	3.4	7.4	67.1	-1.05	0.92	0.23
Saxifraga aizoides	saxaiz	15	0.36	8.3	3.8	309.0	101.0	-1.61	0.983	0.086
Arabis bellidifolia	arabel	13	0.02	2.0	1.3	11.8	125.8	-0.49	0.781	0.434
Thymus praecox	thypra	13	0.03	2.2	1.2	21.2	80.5	-1.55	0.979	0.09

Table S3 Summary results of Principal Component Analysis.

Eigenvalues	PC1	PC2	PC3	PC4	PC5	PC6
Variance	3.02	1.29	0.82	0.45	0.36	0.07
% of variance	50.34	21.46	13.72	7.44	5.95	1.09
Cumulative %	50.34	71.80	85.52	92.96	98.91	100
Variables	PC1 corr	PC1 cos^2	PC1 *P*	PC2 corr	PC2 cos^2	PC2 *P*
Abundance	-0.135	0.018	> 0.05	0.780	0.608	**< 0.001**
Cover	0.873	0.762	**< 0.001**	0.275	0.076	> 0.05
Diameter	0.952	0.907	**< 0.001**	-0.053	0.003	> 0.05
Height	0.506	0.256	**0.003**	-0.576	0.331	**0.012**
LMA	0.602	0.362	**< 0.001**	0.506	0.256	**0.032**
N.leaves	0.846	0.715	**< 0.001**	-0.116	0.013	> 0.05